

AMENDMENTS TO THE CLAIMS

Claims 1-44 (Canceled).

45. (New) Rewinding machine to produce logs of web material comprising:

- a winding cradle;
- an insertion member to insert a winding core into said winding cradle;
- an ejector to eject a log formed in said winding cradle by causing the log to roll on an unloading chute;
- a severing device to sever the web material after the log is ejected from said winding cradle;

wherein

- disposed along the unloading chute is an aperture elongated in a direction transverse to a direction in which the log is unloaded along said unloading chute;
- and said severing device comprises a movable element that is inserted into said aperture to cause severing of the web material between the winding cradle and the log of wound web material.

46. (New) The rewinding machine as claimed in claim 45, wherein said severing device further comprises a blade applied along said aperture with which said movable element cooperates.

47. (New) The rewinding machine as claimed in claim 46, wherein said blade is fitted along an edge of said aperture disposed downstream with respect to a movement to unload the log on said chute.

48. (New) The rewinding machine as claimed in claim 46 or 47, wherein said blade is serrated.

49. (New) The rewinding machine as claimed in claim 45, wherein a first glue container is disposed underneath said unloading chute and wherein a first movable dispensing member that collects glue from said first glue container to apply the glue to the log of wound web material is associated with said first glue container.

50. (New) The rewinding machine as claimed in claim 49, further comprising rewinding means to wind a trailing edge of the log after the glue has been applied.

51. (New) The rewinding machine as claimed in claim 50, wherein said rewinding means define a stop position of the log ejected onto said unloading chute, the glue being applied to the log when the log is in said stop position.

52. (New) The rewinding machine as claimed in claim 49, wherein said aperture has a width in a direction in which said log is unloaded such that when the movable element of the severing device is in said aperture, said

first movable dispensing member can pass through said aperture.

53. (New) The rewinding machine as claimed in claim 45, wherein said movable element is carried by a pair of oscillating arms.

54. (New) The rewinding machine as claimed in claim 53, wherein said pair of oscillating arms supports a winding roller with movable axis.

55. (New) The rewinding machine as claimed in claim 49, wherein a second glue container is disposed underneath said winding cradle and wherein a second movable dispensing member to apply a glue to the winding core when the winding core is in said winding cradle, is associated with said second glue container.

56. (New) The rewinding machine as claimed in claim 45, wherein an insertion surface for the winding core is disposed on an opposed side of said winding cradle with respect to the unloading chute, said insertion member being constructed and arranged to push the winding core along said insertion surface towards said winding cradle.

57. (New) The rewinding machine as claimed in claim 45, wherein said ejector and said insertion member are integral with each other.

58. (New) The rewinding machine as claimed in claim 56 or 57, wherein said insertion member is provided with a translatory movement.

59. (New) The rewinding machine as claimed in claims 56 and 57, wherein said ejector comprises a pair of sides between which a pusher section extends to eject the log of wound web material from said cradle, and with which the insertion member is integral, the ejector and the insertion member being spaced from each other in a direction of movement to insert the winding core and to eject the log, and wherein means to feed the winding core are provided to position said winding core in an intermediate position between the insertion member and the ejector.

60. (New) The rewinding machine as claimed in claim 59, wherein said means to feed the winding core comprise a channel to drop the winding core, defining an insertion trajectory orthogonal to an axis of said winding core.

61. (New) The rewinding machine as claimed in claim 60, wherein said means to feed the cores further comprise a conveyor that inserts said winding core with a movement parallel to the axis of said winding core.

62. (New) The rewinding machine as claimed in claim 61, wherein said conveyor comprises a belt conveyor.

63. (New) The rewinding machine as claimed in claim 49, wherein said first movable dispensing member comprises an elongated member provided with an oscillating movement.

64. (New) The rewinding machine as claimed in claim 55, wherein said second movable dispensing member comprises an elongated member provided with an oscillating movement.

65. (New) The rewinding machine as claimed in claim 50, wherein said rewinding means include a pair of rewinding rollers.

66. (New) The rewinding machine as claimed in claim 65, wherein a first one of said rewinding rollers is supported by a pair of oscillating arms to be carried from an active position to a disabled position.

67. (New) The rewinding machine as claimed in claim 66, wherein a conveyor is disposed between the disabled position of said first one of said rewinding rollers and a second one of said rewinding rollers to move the log of wound web material away in a direction parallel to an axis of the log.

68. (New) The rewinding machine as claimed in claim 45, further comprising a plurality of cutting knives to cut the web material along longitudinal cutting lines, cooperating with respective counter-blades constituted by a plurality of annular channels produced on a counter-roller.

69. (New) The rewinding machine as claimed in claim 68, further comprising a series of ply-bonding members, cooperating with said counter-roller.

70. (New) The rewinding machine as claimed in claim 45, wherein said winding cradle is formed of a pair of winding rollers.

71. (New) The rewinding machine according to claim 45, wherein said movable element includes a rigid member and resilient pressing side members.

72. (New) The rewinding machine according to claim 49, wherein said first glue container is arranged underneath said aperture.

73. (New) The rewinding machine according to claim 72, wherein said movable dispensing member moves from said first glue container towards said log and passes through said aperture into which said movable element enters to sever the web material.

74. (New) The rewinding machine according to claim 49 or 72, wherein along said unloading chute a second aperture is provided, arranged parallel to said aperture into which said movable element enters to sever said web material, said second aperture providing a passage for said first movable glue dispensing member.

75. (New) The rewinding machine according to claim 45, wherein said movable element is carried by a first pair of oscillating arms and wherein a second pair of oscillating arms is provided which carry a third winding roller.

76. (New) Method of producing logs of web material, comprising:

- inserting at least one first winding core into a winding cradle;
- winding a pre-established quantity of web material around said at least one first winding core to form a log;
- unloading the log from said winding cradle along an unloading chute;
- inserting at least one second winding core into said winding cradle;
- severing the web material between said log and said at least one second winding core by means of a severing device;

wherein

- disposed along said unloading chute is an aperture, elongated in a direction transverse to a direction in which the log is unloaded along said unloading chute; and
- severing said web material by a movable element of said severing device by inserting said movable element into said aperture.

77. (New) The method as claimed in claim 76, wherein said movable element cooperates with a blade fitted along said aperture to sever the web material.

78. (New) The method as claimed in claim 76 or 77, wherein a movable winding roller is brought into contact with said at least one second winding core.

79. (New) The method as claimed in claim 78, wherein said movable element is moved in said aperture to sever the web material simultaneously to said movable winding roller when the movable winding roller is brought into contact with the at least one second winding core.

80. (New) The method as claimed in claim 76, wherein a first glue container is disposed underneath said aperture; and wherein a glue is applied by a first movable dispensing member to the log unloaded onto said unloading chute, said first movable dispensing member collecting the glue from said first container.

81. (New) The method as claimed in claim 76, wherein a glue is applied to said at least one second winding core when the at least one second winding core is in the winding cradle.

82. (New) The method as claimed in claim 81, wherein said glue is applied to the at least one second winding core during severing of the web material.

83. (New) The method as claimed in claims 81 or 82, wherein the glue is applied to the at least one second winding core by means of a second movable dispensing member that collects glue from a second glue container disposed underneath said winding cradle.

84. (New) The method as claimed in claim 76, wherein said at least one second winding core is disposed at an insertion surface positioned, with respect to the winding cradle, on a side opposed to said unloading chute, before unloading the log from the winding cradle.

85. (New) The method as claimed in claim 76, wherein the log is unloaded from said winding cradle and said at least one second winding core is inserted into said winding cradle by an ejector and an insertion member, respectively, which are integral with each other.

86. (New) The method as claimed in claim 76, wherein said web material is formed of at least two plies; wherein said at least two plies are bonded together by ply-bonding; and wherein the web material is divided into a plurality of longitudinal strips before winding.

87. (New) The method as claimed in claim 86, wherein the web material is divided by cutting the web material using a series of cutting knives cooperating with a single counter-roller, which is provided with annular grooves

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forming counter-blades for said cutting knives, separated from one another by annular projections at least some of which cooperate with gripping members.

88. (New) Method according to claim 87, wherein said web material is retained during said cutting by pressing the web material near edges of said aperture.